Monthly Patent List.

ENGLISH APPLICATIONS.

1885.

I.—GENERAL PLANT, APPARATUS, AND MACHINERY.

6276 C. C. Carpenter, Westminster. Improvements in retort-lid fittings. May 22

6166 H. J. Haddan, London—Communicated by J. W. Brightman, United States. Improvements in furnaces. Complete specification. May 27

7035 Machinenfabrik Germania (late J. S. Schwalbe and Sohn, and P. Effertz), London. Improvements in machines for making ice, and engines wherein cold vapours, air, or gases are employed. June 9

7126 J. G. Lorrain, London. Improvements in chemical precipitation, and in the separation of matter mechanically suspended in liquids. June 11

7399 W. P. Thompson, Liverpool—Communicated by F. C. Glaser, Germany. Improvements in or relating to apparatus applicable for the separation of suspended matters from water or other liquids, and for the removal of the resultant sediment. June 18

II.—FUEL, GAS, AND LIGHT.

6306 G. F. Redfern, London—Communicated by P. Prat, France. Improvements in apparatus for generating gases. May 22

6519 J. Taylor, A. Stewart, and C. Stewart, Glasgow. Burning tar, heavy oils, or other liquid fuels for heating purposes, applicable to steam-boilers and other similar purposes. May 29

6627 R. Wyllie, London. Improvements in the utilisation of the otherwise waste heat from steam-engines, boilers, and furnaces. June 1

6881 J. Y. Johnson, London—Communicated by La Société Anonyme des Forges et Chantiers de la Méditerranée, France. Improvements in machinery or apparatus for manufacturing blocks of artificial fuel. June 5

6931 A. Gontard, Mockau, Saxony. Improvements in the purification of air or gases from solid or gaseous impurities contained therein, and apparatus therefor. June 8

6938 T. S. Lindsay, London. Improvements in the means of generating fixed gases for illuminating, heating, and metallurgical purposes. June 8

7120 E. Entwistle and A. Pilkington, Blackpool. Improvements in apparatus or apparatuses to economise and effect a more efficient consumption of fuel, smoke, and noxious gases in open or closed grates or furnaces. June 18

7157 C. I. C. Bailey and S. C. Dean, Fulham. Improvements in making and utilising water and oil gas. June 18

III.—DESTRUCTIVE DISTILLATION, TAR PRODUCTS, Etc.

7079 J. Hardman, Manchester. Improvements in and in apparatus for obtaining carbolic acid and other tar acids from tar oils. June 10

7358 A. M. Chambers and T. Smith, London. Improvements in coke ovens and in methods of and apparatus for collecting and utilising the products of combustion from such coke ovens. June 16

V.—TEXTILES: COTTON, WOOL, SILK, Etc.

6218 H. J. Haddan, London—Communicated by E. Frémy, France. Improvements in the treatment of ramie and similar textile fibres, and apparatus therefor. May 21

6333 W. H. Thorpe and G. Popper, Halifax. Improvements in machinery for drying silk, wool, cotton, and other fibre. May 23

6509 H. H. Lake, London—Communicated by A. Sandron, Belgium. Improvements relating to the waterproofing and preservation of linen and other fabrics, ropes, hose, and other articles composed of vegetable substances. May 28

6593 C. D. Abel, London—Communicated by J. O. Obermaier, Germany. Improvements in apparatus for treating fibres, yarns, and textile fabrics. May 30

6591 C. D. Abel, London—Communicated by J. O. Obermaier, Germany. Improvements in apparatus for treating fibres for spinning. May 30

6816 S. W. Maquay, London—Communicated by G. W. Hamilton, Australia. A wool-cleaning preparation. June 5

6922 W. W. Hamilton, New York. Improvements in treating animal and vegetable fibres for textiles, cordage, and other uses. Complete specification. June 8

6923 W. W. Hamilton, New York. Improvements in treating animal and vegetable fibres for textiles, cordage, and other uses. Complete specification. June 8

7186 W. Jones and C. Kilpatrick, Manchester. Improvements in the treatment of the matters separated or precipitated from the water in which wool, silk, and other fibrous materials have been boiled, scoured, or washed along with soap or other material. June 12

VI.—DYEING, CALICO PRINTING, PAPER STAINING, AND BLEACHING.

6295 and 6296 J. Refitt, London. Improvements in the means or apparatus employed for dyeing woollen, silk, and other woven or felted fabrics and yarns. May 22

6331 E. Taylor, Manchester. An improved method of purifying and decolouring the water in which silk and other fibrous materials have been boiled along with soap and the refuse, liquid, or dye in which silk and other fibrous materials have been cleansed or dyed, and recovering useful products from such water and refuse, liquid, or dye. May 23

6888 W. R. Lake, London—Communicated by The Prag Smichower Kattun Manufactur and F. Storck, Austria. Improvements in apparatus for use in fixing the colours upon printed cotton fabrics and for washing the same. June 5

7187 J. C. Mewburn, London—Communicated by G. Lombard et Cie., France. Improvements in the means or apparatus employed in purifying, bleaching, dyeing, or otherwise operating upon yarns or threads. June 12

7162 T. Nordenfelt, London. Improvements in the manufacture of blood albumen. June 18

VII.—ACIDS, ALKALIS, AND SALTS.

6127 C. A. Bartsch, London. Improvements in stills for concentrating sulphuric acid. Complete specification. May 19

6131 J. H. Johnson—Communicated by Dr. F. von Heyden, Nachfolger, Germany. A new or improved process for the manufacture of naphthol-carbonic alkaline salts. Complete specification. May 19

6255 W. Black and W. L. Rennoldson, London. An improved process for the manufacture of hydrate of baryta and sulphide of sodium. May 21

6272 G. H. Bolton, Liverpool. Improvements in lids or covers for drums or packages for caustic alkalis or other material. May 22

6101 E. Hänisch and M. Schroeder, London. Obtaining sulphur from furnace gases. Complete specification. May 26

6105 E. Hänisch and M. Schroeder, London. Obtaining liquid anhydrous sulphurous acid from furnace and other gases. Complete specification. May 26

6515 A. Favier, Paris. Producing directly the nitrate of ammonia from the nitrate of soda. May 29

6611 H. Trecht, London. Improvements in obtaining carbonate of potash by the Leblanc process. June 1

6630 T. Terrell, London. Improvements in decomposing sulphate of iron and in the obtaining of sulphurous acid and red oxide of iron thereby. June 2

6715 E. W. Parnell and J. Simpson, Liverpool. Improvements in the extraction of sulphur from alkali-waste and other sulphides of calcium. June 3

6818 L. Pilkington, Liverpool. Improvements in the lids or covers for drums or other packages applicable for caustic alkalis. June 5

6866 T. Twynam, London. Improvements in the production of soluble phosphates of the alkalis in the manufacture of steel and iron. June 5

6867 T. Twynam, London. Improvements in the production of alkaline phosphates in the manufacture of iron or steel from phosphoric pig-iron. June 5

7135 P. Römer, London. Improvements in the manufacture of bichromate of potash. Complete specification. June 11

7136 E. F. Trachsel, London. An improved method or process of producing hydrate or carbonate of strontium or of barium. June 11

7195 J. Mactear, Glasgow. Improvements in the manufacture of the alkaline earths and the hydrates of the same. June 12

7285 R. Oxland and C. Oxland, London. Improvements in apparatus for burning or calcining ores and minerals containing sulphur or arsenic, for the manufacture of sulphuric acid or arsenious acid, or white arsenic. June 15

7317 B. C. Molloy, London. Improvements in the manufacture of sulphuric acid. June 16

7355 H. H. Lake, London—Communicated by A. Kayser, A. B. Young, and H. Williams, United States. An improved method or process for the manufacture of carbonate of soda or soda-ash. Complete specification. June 16

VIII.—GLASS, POTTERY, AND EARTHENWARE.

6163 J. G. Sowerby, London. Improvements in the construction of moulds used in the manufacture of glassware. May 27

6510 J. Y. Johnson, London—Communicated by W. Hirsch, Germany. Improvements in the manufacture of decorated glass. May 28

6739 J. G. Sowerby, London. Improvements in moulds for moulding articles of glass or other ware. June 3

7250 J. Broadhurst, Stoke-on-Trent. An improved pottery kiln or oven. June 15

IX.—BUILDING MATERIALS, CLAYS, MORTARS, AND CEMENTS.

6133 E. Cammiss, London. Improvements in means and apparatus employed in the manufacture of bricks. May 19

6157 C. Schlickeysen, London. Improvements in apparatus for cutting bricks and tiles. May 19

6211 G. E. Smart, Tunbridge Wells. Improvements in tiles or equivalent, and accessories applicable in the construction of walls or buildings, roofs, pavements, and the like. May 21

6219 G. F. Redfern, London—Communicated by Le Comte Bernard d'Abbadie, France. Improvements in tiles. May 21

6579 J. D. Denny, Newbridge, Ruabon. Double lock tiles for walls, ceilings, partitions, etc.; also box, plates, etc., for making the tiles. Complete specification. May 30

6639 F. Maxwell-Lyte, London. Improvements in the manufacture of refractory bricks, furnaces, converters, crucibles, and other refractory apparatus, and cement. June 1

6813 C. Kingsford, London. Improvements in drying or evaporating apparatus for use in the manufacture or treatment of cement and other materials. June 1

6849 J. D. Denny, Newbridge, Ruabon. An Improvement in making bricks, faced bricks, and ornamented bricks for glazing or otherwise; also in the box-plates, etc., for making the said tiles. June 5

7082 J. F. Ebner, London. Improvements in the composition of adhesive anti-dry-rot waterproof material used, and method of securing parquet flooring to stone, concrete, wood, metal, or other surfaces, applicable to other like purposes. June 10

7106 A. Patrick, Glasgow. Improvements in making sewage pipes, glazed bricks, and other earthenware articles. June 11

7118 C. A. Wilkes and W. Millar, London. An improved metallic compound for flooring, paving, and other purposes. Complete specification. June 11

7189 W. Joy, London. Improvements in the manufacture of cement, and in apparatus for that purpose. June 12

7311 G. M. Garrard, London. Improvements in presses for pressing tiles. June 16

7339 H. R. Snelgrove, London. Improvements in fire-proof ceilings and floors. June 16

X.—METALLURGY, MINING, Etc.

6121 J. R. Griffin, London. Improvements in method of and apparatus for reducing ores. Complete specification. May 19

6138 E. Scott, London. An improved machine or apparatus for washing ore or similar materials. May 19

6190 J. Noad, London. Improvements relating to the extraction of gold and other precious metals from ores and other substances or products containing such metals. May 20

6205 G. Siddell, London. An improved mechanical appliance for working or operating on large forgings in iron or steel. May 20

6211 J. McRobie, Glasgow. Producing steel of highest quality from the commonest pig-iron. May 21

6220 J. G. Laurie, Glasgow. Improvements in and connected with moulds for casting steel or iron or compounds thereof. November 1, 1884.—Previously included in No. 11151 of 1884.

6317 G. M. Edwards, London. Improvements in machinery and appliances for treating, dressing, and cleaning tin and other mineral ores, and in modes, means, and processes connected therewith, and for other useful purposes. May 23

6385 J. Riley, Glasgow. Improvements in admixing ferromanganese or other substances with steel, and in apparatus therefor. May 26

6129 W. R. Lake, London—Communicated by C. J. Eames, United States. Improvements in the manufacture of iron sponge, iron, and steel, and in apparatus therefor. Complete specification. May 26

6130 W. R. Lake, London—Communicated by C. J. Eames, United States. Improvements in the manufacture of iron sponge, iron, and steel. Complete specification. May 26

6131 W. R. Lake, London—Communicated by C. J. Eames, U.S. Improvements in the manufacture of iron sponge, iron, and steel. Complete specification. May 26

6633 F. Siemens, London. An improvement in the mode of working open hearth iron and steel furnaces, and in the construction of furnaces for that and other purposes. Complete specification. June 1

6638 T. Hampton, London. Improvements in the manufacture of steel armour plates. June 1

6663 J. S. Williams, Riverton, United States. Improvements in the methods of or means for constructing ordnance, and in apparatus or means employed therefor or therewith. June 2

6661 J. S. Williams, Riverton, United States. Improvements in methods or means for moulding or treating metal and other materials, and in apparatus or means employed therein or therewith. June 2.

6671 A. E. Scott, London. An improved process for separating metals from their ores, especially refractory gold ores, mundic, and sulphurous ores. June 2

6711 W. R. Lake, London—Communicated by B. Atha, United States. Improvements in the manufacture of metal ingots and apparatus therefor. June 2

6718 B. D. Healey and B. H. Thwaite, Liverpool. Improvements in the application of gaseous fuel for smelting ores, and in furnace crucible and other plant therefor. June 3

6729 W. P. Thompson, Liverpool—Communicated by A. Kurzwernhart and E. Bertrand, Austria. Improvements in or relating to the casting of iron or steel ingots. June 3

6758 P. M. Justice, London—Communicated by The Frue Vanning Machine Co., United States. Improvements in concentrating or washing apparatus for the treatment of ores or other materials. June 3

6759 J. Deby and H. B. Fulton, London. Metallurgical process for the purification of metals, and for the production of metallic alloys. June 3

6760 H. B. Fulton and J. Deby, London. Improvements in the treatment of copper precipitate, regulus, or ore, for removal therefrom of arsenic. June 3

6873 J. Gjers, London. Improvements in the manufacture of steel. June 5

6893 T. Williamson, Wishaw. Improvements in regenerators and open-hearth furnaces. June 8

6891 J. McCulloch, Glasgow. Improvements in preparing ores, oxides, or compounds of iron for smelting or reducing. June 8

6939 A. Greiner and T. Erpf, Halifax. Improvements in the method of and apparatus for smelting iron. Complete specification. June 8

6970 E. Fischer and J. Posnansky, London. A new or improved process for obtaining white lead direct from the ore. June 8

6991 W. P. Thompson, Liverpool—Communicated by E. H. Cowles and A. H. Cowles, United States. Improvements in smelting ores by an electric current, and in furnaces or apparatus therefor. June 9

7008 E. Heath Oswald and W. R. Oswald, London. An improved method for the more efficient collection and retention of tin and other ores. June 9

7009 T. May, London. Improvements in gas-producing furnaces for smelting metals, glass, brick-burning, and other purposes. June 9

7011 H. J. Allison, London—Communicated by The Compressed Steel Co., United States. Improvements in the manufacture of steel ingots. Complete specification. June 9

7012 H. H. Lake, London—Communicated by H. E. Cahen, called Régnier, France. Improvements in the manufacture of steel. June 9

7071 A. Ephraim, London. A new or improved process for iridising metal objects by electro means. June 10

7093 M. J. E. Morris, London. Improvements in the treatment and concentration of sulphate of iron solution, more especially in the form of tin-plate refuse liquor. June 10

7115 W. Beatson, Rotherham. An improved method of blasting in coal and other mines. June 11

7130 C. H. McEuen, London. An improved process for the extraction of the precious metals from their ores. June 11

7161 E. Hunt, Glasgow—Communicated by M. T. Brown, United States. Improvements in precipitating copper from solutions containing sulphate of copper. June 12

7179 J. H. Johnson, London—Communicated by La Société Anonyme "Le Ferro Nickel", France. Improvements in the manufacture or treatment of iron and steel. June 12

7231 R. G. Brook, Liverpool. New or improved apparatus for blowing molten copper. June 13

7307 A. K. Huntingdon, London. A process for the production of aluminium. June 16

7365 J. E. Stead, Middlesborough. Improvements in the manufacture of iron and steel. June 17

XI.—FATS, OILS, AND SOAP MANUFACTURE.

6270 S. Banner, Liverpool. Improvements in lubricants and in the manufacture thereof. May 22

6195 T. F. Veasey, London. Extracting oils and fat from fish. May 28

6562 C. D. Abel, London—Communicated by L. Hugues, France. Improved apparatus for dissociating neutral fatty bodies by means of heat, and for the direct production of fat acids and glycerine by the action of water at high pressure. May 29

6667 J. H. Ashwell, Liverpool. Improvements in treating or utilising soap suds. June 2

6752 J. Drury, London. Improvements in the method of purifying brown grease. June 3

7151 P. Brintini, London. An improved manufacture of saponaceous material for washing purposes. June 18

XII.—PAINTS, VARNISHES, AND RESINS.

6119 D. McCowan, Glasgow. Improvements in the manufacture of enamel paint. May 19

6841 M. Schumann, London—Communicated by H. Graf, Germany. An improved metallic paint.

7111 G. L. Wigg, M. Steele, and W. J. Wigg, Liverpool. Improvements in the manufacture of pigments. June 11

7121 D. Melville and J. F. Whitney, Liverpool. Improvements in paints, coatings, or compositions for coating ships' bottoms or other submerged structures. June 11

XIII.—TANNING, LEATHER, GLUE, AND SIZE.

7223 P. M. Justice, London—Communicated by A. Sandron, Belgium. Improved means for waterproofing and preserving leather, cardboard, and similar materials. June 13

XIV.—AGRICULTURE, MANURES, Etc.

6153 W. Grimshaw, London. Improvements in treating and drying excreta and manufacturing the same into manure. May 27

XV.—SUGAR, STARCH, GUM, Etc.

6135 J. H. Johnson, London—Communicated by E. M. J. Baptiste, Etienne, France. Improvements in apparatus for the manufacture of loaf sugar. May 19

6139 W. R. Lake, London—Communicated by W. T. Jebb, United States. Improvements in the manufacture of starch. May 19

6140 W. R. Lake, London—Communicated by W. T. Jebb, Improvements in the manufacture of grape sugar or glucose. May 19

6358 L. Lefranc, London. An improved process of extracting juices, syrups, and molasses in sugar manufactories, refineries, and the like. May 23

6132 W. R. Lake, London—Communicated by F. O. Matthiessen, United States. Improvements in the manufacture of sugar and in apparatus therefor. Complete specification. May 26

6661 A. M. Clark, London—Communicated by the Davenport Glucose Manufacturing Company, United States. Improvements in the manufacture of starch, glucose, and other starch products. Complete specification. June 2

7093 O. Korschelt, London—Communicated by H. Soxhlet, Bavaria. Improvements in the manufacture of grape sugar. June 10

XVI.—BREWING, WINES, SPIRITS, Etc.

6213 J. C. Mewburn, London—Communicated by G. Noback and W. Gintl, Bohemia. Modes of treating and utilising certain waste products obtained in brewing and similar processes. May 21

6288 W. S. Squire, London. Improvements in the manufacture of yeast. May 22

6193 J. Milne, Glasgow. Improvements in apparatus for drying malt, grain, seeds, and other analogous vegetable products. May 28

6801 R. C. Sinclair and J. Hodson, London. Apparatus for effecting the turning of malt or other grain on the drying floors of kilns. Complete specification. June 1

6821 C. Rüs Bonne, London. Improvements in apparatus for producing carbonic acid gas, and for utilising the same in raising malt liquors, and for other analogous purposes. Complete specification. June 1

7378 A. G. Salamon, London. Improvement in the treatment of brewers' waste, and in the preparation of compounds to be used for such purpose. June 17

XVII.—FOOD PRESERVING, MEATS, Etc.

6125 C. L. Bachelerie, London. An improved method of rendering incorruptible any organic, vegetable and animal substances, and preserving their nutritious and alimentary properties. May 26

6707 A. W. M. Leicester, London. A process for preserving fruits. June 2

7056 H. T. Johnson, Manchester. The preservation of food by means of air-tight vessels. June 10

XVIII.—SANITARY CHEMISTRY, DISINFECTANTS, Etc.

6351 A. Howatson London. Improvements in apparatus for separating solid impurities from water or other liquids. May 23

6111 A. Breuer, London. Improvements in the manufacture of porous bodies for filtering, or other purposes. May 26

6159 F. R. Conder, London. Improvements in the purification of water, which improvements are also applicable to other sanitary purposes. Complete specification. May 27

6587 W. Macnab, London. Improvements in apparatus for separating liquids from solid matters suspended therein. May 30

6653 T. Bradford, Manchester. Improved disinfecting apparatus. June 2

6853 H. Saunders, Wolverhampton. A vessel to contain certain chemicals, the fumes of which shall neutralise, condense, prevent, or deodorise the evaporation of the effluvia arising from night-soil placed in pans during their removal in waggons through the streets. June 5

6992 M. Hilton, Prestwich. The purification of sewage and sewage waters, bleachers', dyers', and printers' refuse water, and for the recovery, manufacture, and utilisation of products relating thereto. June 9

7230 E. W. Bickerton, London—Communicated by A. E. W. Howe and W. R. Bickerton, Tasmania. An improved preparation for washing or cleansing, and disinfecting purposes. June 13

7278 H. M. Martyn, London. Improvements in the method of and apparatus for disinfecting rags. June 15

7318 G. H. Ellis, London. A new or improved process for the economical production of a porous carbon for filtering, refining, decolourising, and deodorising liquids. Complete specification. June 16

7352 B. L. Ryder, London. Improvements in method and apparatus for desiccating vegetable and animal matter. Complete specification. June 16

7451 R. V. Tuson, London. Improvements in the manufacture of preparations to be used for the destruction of parasites on sheep and other animals, and similar purposes. June 18

XIX.—PAPER, PASTEBOARD, Etc.

6839 R. C. Menzies, C. F. Cross, and E. J. Bevan, Liverpool. Improvements in the preparation of paper pulp from straw, esparto, wood, rags, and like fibrous substances. June 5

6840 R. C. Menzies, C. F. Cross, and E. J. Bevan, Liverpool. Improvements in the treatment of fibrous substances for the manufacture of paper pulp and textile fabrics. June 5

7156 H. H. Lake, London—Communicated by J. Jordan, United States. Improvements in the treatment of paper-pulp, and in apparatus or machinery therefor. Complete specification. June 11

7158 H. H. Lake, London—Communicated by A. D. Beaunier, France. Improvements in the manufacture of cardboard or pasteboard, and apparatus therefor. June 18

XXI.—EXPLOSIVES, MATCHES, Etc.

6182 J. S. Williams, Riverton, United States. Improvements in methods or means of constructing and operating explosive projectiles, and in apparatus or means employed therefor or therewith. May 20

6183 J. S. Williams, Riverton, United States. Improvements in methods or means of constructing and operating explosive projectiles, and in apparatus or means employed therefor or therewith. May 20

6181 J. S. Williams, Riverton, United States. Improvements in methods or means of constructing and operating explosive projectiles, and in apparatus or means employed therefor or therewith.

6185 J. S. Williams, Riverton, United States. Improvements in methods or means of constructing and operating explosive projectiles or receivers, and in apparatus or means employed therefor or therewith. May 20

6372 J. S. Williams, Riverton, United States. Improvements in methods or means of constructing and operating explosive projectiles or receivers, and in apparatus or means employed therefor or therewith. May 23

6517 W. Kennish, Halifax. Improvements in and relating to explosive projectiles. May 29

6903 T. G. Hart, Dartford, Kent. Improvements in explosives for use in firearms. June 8

6926 H. S. Maxim, London. Improvements relating to the manufacture of explosive compounds. June 8

7215 J. S. Williams, Riverton, United States. Improvements in methods or means of constructing and operating explosive projectiles, and in apparatus or means employed therefor or therewith. June 13

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*ENGLISH PATENTS PUBLISHED.**

APPLIED FOR DURING 1884 AND 1885.

I.—GENERAL PLANT, APPARATUS, AND MACHINERY.

1884.

8661. E. Morris. Composition for preventing and removing incrustation in steam and other boilers. 2d

9173 G. P. Jaques. Incrustation composition to dissolve the crusts. 2d

1885.

1018 F. W. Gordon. Improvements in hot blast stoves. 6d

II.—FUEL, GAS, AND LIGHT.

1884.

7510 A. Ponsard. Means and apparatus for the manufacture of gas for lighting purposes and for heating purposes. 6d

8810 G. F. Orange. Apparatus for conservating and using the heat produced in furnaces. 6d

13228 B. F. Elderton. The treatment of coal-gas, and apparatus for increasing its brilliancy for illuminating purposes. 6d

1885.

3776 A. H. Reed—Communicated by G. E. Moore. The manufacture of hydrogen gas. 1d

IV.—COLOURING MATTERS AND DYES.

1884.

8195 H. J. Haddan—Communicated by the Farbenfabriken vormals F. Bayer & Co. Process for separating the alphamonosulpho acid of the beta-naphthol from certain admixtures. 4d

9518 J. Erskine—Communicated by the Farbenfabriken vormals F. Bayer & Co. The production of colouring matters suitable for dyeing and printing. 4d

9606 W. W. Grieves—Communicated by the Farbenfabriken vormals F. Bayer & Co. Producing yellow colouring matter suitable for dyeing and printing. 2d

9756 E. Capitaine—Communicated by Ewer and Pick. Producing sulphurous colours. 6d

10100 E. H. Newby—Communicated by E. Thiebaut. The extraction from grapes or raisins of various substances, and the use or application of the same for colouring or other purposes. 4d

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*Any of these specifications may be obtained by post, by remitting the cost price, *plus* postage, to Mr. H. Reader Lack, Comptroller of the Patent Office, Southampton Buildings, Chancery Lane, London, W.C. The amount of postage may be calculated as follows:—

If the price does not exceed 8d.	½d.
Above 8d., and not exceeding 1s. 6d.	1d.
" 1s. 6d., " " 2s. 4d.	1½d
" 2s. 4d. " " 3s. 4d.	2d.

11002 F. Gaess. The manufacture of red azo-dye-stuffs or colouring matters 4d.

11030 J. H. Johnson—Communicated by H. Caro. The preparation of purple colouring matters suitable for dyeing and printing. 4d

V.—TEXTILES, COTTON, WOOL, SILK, Etc.

1884.

10139 L. A. Groth—Communicated by H. Giesler. Apparatus for, and method of, chemically treating wool, cotton and other soft goods. 6d

VI.—DYEING, CALICO PRINTING, PAPER STAINING, and BLEACHING.

1884.

9701 D. Dawson. A new method of fixing insoluble azo colours upon cotton and other vegetable fibre. 4d

9802 R. B. Lytle. Bleaching linen and cotton yarns, linen and cotton cloth, and other textile fabrics. 2d

10012 W. D. Thornton. Improvements in the method of and apparatus for dyeing. 6d

VII.—ACIDS, ALKALIS, and SALTS.

1884.

8803 P. Jensen—Communicated by A. Kux. Apparatus for concentrating sulphuric acid. 6d

9107 E. F. Trachsel. Method of producing carbonate or oxide of strontium or of barium, and recovering bye-products therefrom. 4d

9158 E. Carey and H. Gaskell, jun.—Partly communicated by F. Hurter. Manufacture of sulphite of soda. 6d

9765 J. Imray—Communicated by H. Leplay. Decarbonating carbonate of strontia, and apparatus therefor. 6d

9768 W. L. Wise—Communicated by H. Grouven. Effecting the recovery of sulphur from soda waste. 4d

9997 W. H. Perry and J. O. Boulton. Apparatus for the manufacture of vinegar. 6d

10267 W. A. Hills. The manufacture of precipitated phosphate of alumina and the mixed precipitates of phosphate of alumina and sulphate of lime. 4d

10118 C. T. Richardson. The utilisation of certain waste products from the manufacture of soda and chlorine. 2d

12110 T. W. B. Mumford and R. Moodie. Apparatus for the concentration of sulphuric acid, or for analogous purposes. 6d

1885.

3895 J. J. Hood. The manufacture of chromates and bichromates. 4d

4175 F. J. B. Raken—Communicated by H. Beins and J. F. Beins. Method of manufacturing carbonic acid under any desired pressure. 2d

VIII.—GLASS, POTTERY, and EARTHENWARE.

1884

10786 C. D. Abel—Communicated by La Compagnie Générale du Verre et du Cristal Trempés. Manufacture of toughened opal glass articles, and apparatus therefor. 6d

1885.

1633 G. W. Wilkinson. *Gas kilns for burning glass, china,* pottery-ware, and other such like articles. 6d

IX.—BUILDING MATERIALS, CLAYS, MORTARS, and CEMENTS.

1884.

9357 S. de la Grange Williams and J. A. B. Bennett. Kilns *for burning limestone, cement and bricks, and for other like* purposes. 6d

9887 H. M. Smith. Coating or surfacing bricks and tiles. 2d

10190 R. Stone. The manufacture of plaster from chalk, lime, gypsum, etc., and machinery and appliances therefor. 2d

1885.

1151 W. E. Heys—Communicated by E. Ladowig. The manufacture of fire and waterproof boards or paper from asbestos. 4d

X.—METALLURGY, MINING, Etc.

1884.

10085 T. Bayley. The treatment and utilisation of the spent pickle after use for cleaning iron. 4d

10620 T. Froggatt. Steeling iron without welding or blistering. 4d

10932 H. H. Lake—Communicated by T. Shaw. An improved alloy, chiefly designed for electrical conductors, and process of manufacturing the same. 4d

15027 F. J. King. The separation of ores and mineral products, and apparatus employed therein. 6d

1885.

479 J. Lletget y Sardá. Improvements in the manufacture or *treatment of iron and steel.* 2d

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